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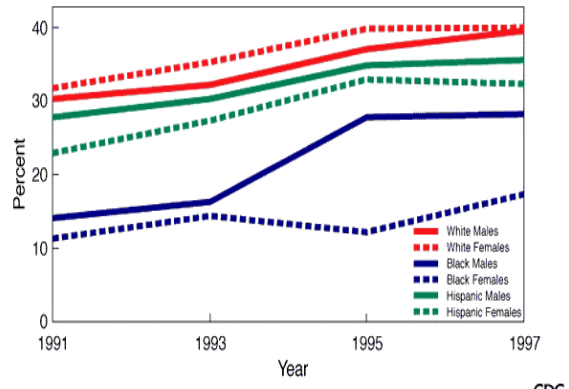
Introduction

President Richard Nixon declared the "War on Cancer" in 1971 when he signed the National Cancer Act, expanding the mission of the National Cancer Institute and releasing major resources for the new National Cancer Program. In 1998 a report released by the American Cancer Society (ACS), the National Cancer Institute (NCI), and the Centers for Disease Control and Prevention (CDC) states that the rate of new cancer cases and deaths for all cancers *declined* between 1990 and 1996 in the United States. However, a special section of the study focusing on lung cancer and smoking reports that, unless the increase in adolescent smoking can be reversed, lung cancer rates are likely to start increasing again.

Current Cigarette Use Among U.S. High School Students by Gender, Race/Ethnicity, 1991-1997



The report shows that the incidence rate for all cancers declined on average 0.9 percent per year between 1990 and 1996. This trend reversed a pattern of increasing incidence rates from 1973 to 1990. From 1990 to 1996, cancer death rates have been falling on average 0.6 percent per year. However, cancer remains as the second leading cause of death in the United States. This year, about 565,000 Americans are expected to die of cancer. Only four of ten people diagnosed with cancer in 1998 will be alive in five years. The American Cancer Society estimates that in 1998 about 175,000 lives will be lost to cancer because of tobacco use. Up to 19,000 cancer deaths will be related to excessive alcohol use, frequently in combination with smoking.

The Veterans Affairs Western New York Healthcare System (VAWNYHS) Cancer Program is dedicated to reducing the mortality rate of cancer by a multi-disciplinary approach including screening, early detection, treatment and continuing follow up care for these veterans.

The Veterans Affairs Western New York Healthcare System includes the VA Medical Centers at Buffalo, Batavia and numerous community-based outpatient clinics. The Cancer Program is approved by the American College of Surgeons as a "Teaching Hospital Cancer Program". As a VA designated "Comprehensive Cancer Care Cancer", the VAWNYHS provides care to eligible veterans in Western New York, the Southern Tier of New York State and parts of Pennsylvania through liaisons with the primary care programs at Bath, Canandaigua and Erie, PA.

The Oncology Section at the Veterans Affairs Western New York Healthcare System at Buffalo has its own inpatient beds, infusion clinics for chemotherapy as well as clinics for Oncology outpatients. The VAWNYHS has become increasingly an *outpatient* facility where patients are

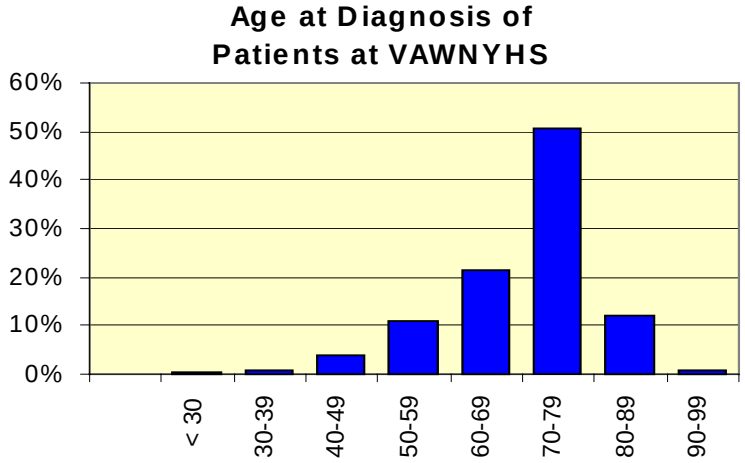
often able to receive all of their work-up and treatment without ever being admitted to the hospital.

A full range of diagnostic and treatment capabilities is available at the VAWNYHS. Subspecialty support from internal medicine includes cardiac evaluation, GI, pulmonary, endoscopy, ICU care and dialysis. Diagnostic services include nuclear medicine (PET), general radiology, CT scanning, MRI, mammography, ultrasound and pathology (tumor markers, enzyme cytochemistry, immunohistochemistry, and flow cytometry). Surgical services include general surgery, the subspecialties of ENT, Urology, Thoracic, Orthopedic, Oral Maxillofacial and Plastic. In addition to staff nurses, the VAWNYHS Oncology Program has Nurse Practitioner, Clinical Nurse Specialist, and Research Nurse support. Other multi-disciplinary team members include Social Work, Rehabilitation Services, Dentistry, Psychology, Dietetics, and Pharmacy. Working together this team provides knowledgeable, compassionate care and education for cancer patients and their families both in the hospital and in outpatient settings.

In keeping with the aging VA population, the majority of the patients seen at the VAWNYHS Cancer Program are between 50 and 80 years old. Although cancer death rates for many major cancer sites have leveled off or declined nationally over the past 50 years, the cancers which are more common in an older population and in the VA, (lung, urinary, prostate, and colon) have remained steady or have increased.

Cancer research includes participation in several Cancer and Leukemia Group B (CALGB) studies as well as independent locally developed and pharmaceutical company sponsored studies. Protocols have looked at many therapeutic regimens involving chemotherapy, surgery and/or radiation therapy, chemoprevention and several supportive care topics, especially pain control. We have also focused on improving techniques for staging and following response to therapy such as in PET and monoclonal imaging.

Monica B. Spaulding, M.D.
Cancer Committee Chair



50% Of The Veterans Diagnosed with Cancer At This Facility Are Between 70 And 79

Cancer Committee

The Cancer Committee at the Veterans Affairs Western New York Healthcare System is a multidisciplinary committee dedicated to comprehensive patient care. The focus of the committee is to insure that appropriate quality care is provided to all cancer patients at VAWNYHS, as well as to insure that our cancer program complies with the standards of the American College of Surgeons' Commission on Cancer.

Highlights of 1998 Cancer Committee activities included: (1) Preparing for survey by the American College of Surgeons. The program was surveyed in November and received a 3-year approval from the ACoS. (2) Monitoring and improving work-up time for lung cancer (3) Promoting protocols, (4) Supporting the cancer registry as it continues to serve as an alpha test site for the VA's oncology software program (4) Participating in the Patient Care Evaluations from the ACoS which included the "Breast" and "Prostate Cancer" studies, as well as the National Cancer Data Base "Call for Data".

Members of the Cancer Committee actively support the Tumor Registry by reviewing at least 10% of all abstracts and answering registrars' questions regarding staging, treatment, or progression of disease.

1998 Cancer Committee Members

Monica Spaulding, M.D.	Chair Chief, Oncology Service
Daya Balu, M.D.	Chief, Pathology Department
Ruben Cartagena, M.D.	Chief, Urology Service ACoS Liaison
Michele Cook, M.D.	Chief, Radiology
Barb Cunningham, CTR	Tumor Registry, Coordinator
Margaret Heinikel, CTR	Tumor Registry
Sudesh Kapur, M.D.	Radiation Oncologist
Karen McGrath RN.	Oncology Nurse Practitioner
Hani A. Nabi, M.D.	Nuclear Medicine
William O'Neil, DDS	Dental Service
Ray Perkins, PA	Surgical Service
Mary Skibinski, MSW	Oncology Social Worker.
T. Srikrishnan, M.D.	Rehabilitation Service
Cindy Watson, RRA	Quality Assurance

Tumor Registry

The Tumor Registry is one of the components of an American College of Surgeons Approved Cancer Program. The reference date for the VAWNYHS registry is 1984. There are over 8500 cases in its computerized registry. The registry, which is staffed by two Certified Tumor Registrars, is responsible for abstracting new cases and following and documenting recurrences, treatments and status of almost 2,000 living patients. The registry maintains a follow-up rate of over 97%.

With the approval and interaction of the Cancer Committee, the registry participated in the National Cancer DataBase "Call for Data" and "Prostate" and "Breast" Patient Care Evaluations from the American College of Surgeons. The registry reports its data to the New York State Cancer Registry as well as the Veterans Affairs Central Cancer Registry in Washington, D.C. The registry continues to serve as a test site for the Veterans Affairs' Oncology Software Program and assisted in rewriting the Manual for the Oncology Software. The registry has also been a leader in reporting its data to the VA Central Registry. New technology allows this to be accomplished electronically.

In 1998, both registrars attended the National Cancer Registrars Association meeting in Boston, MA and the VA Cancer Symposium in San Antonio, Texas. There were many opportunities to learn new technology which enabled the registry to better share its data with staff, local, state and national organizations.

The registry, which encourages use by staff, was happy to provide a wide variety of information from its database. Some of the requests for statistics and information which were provided in 1998 included: patients with unknown primaries who had PET scans, advanced stage prostate cancer patients who failed hormone therapy, number of metastatic prostate cancer patients, head and neck cancer patients who had PET scans, head and neck cancer patients who developed lung primaries, data on hormone refractory prostate cancer patients, and Stage III and IV lung cancer patients: their survival by treatment for a comparison study.

The goals of the Tumor Registry are to provide medical staff with data that will enable them to see the results of their diagnostic and therapeutic efforts and to provide them with information which may help to improve the care of the patient with cancer.

Barbara Cunningham, CTR
Tumor Registry Coordinator

1998 Tumor Conferences

Tumor conferences provide a multi-disciplinary setting which benefits the cancer patient. Tumor conferences provide presentation, staging and treatment options for the patient's disease. Conferences are held weekly at the VAWNYHS and are attended by physicians, medical students, residents, fellows, nurses, tumor registrars and other health professionals.

During 1998 over 130 cases/topics were presented. Sites presented included: bladder, breast, colon, kidney, larynx, liver, lung, lymph nodes, malignant melanoma, multiple myeloma, nasopharynx, pancreas, parotid, pharynx, prostate, soft tissue, stomach, testis, and thymus. Topics discussed included anemia, gastric lymphoma, hepatocellular carcinoma, leukemia, lung cancer, lymphoma, malignant melanoma, sarcoma and thrombocytopenia.

Cancer Prevention and Screening

What Causes Cancer?

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. Cancer can be caused by both external (chemicals, radiation, and viruses) and internal (hormones, immune conditions, and inherited mutations) factors. Causal factors may act together or in sequence to initiate or promote carcinogenesis. Ten or more years often pass between exposures or mutations and detectable cancer.

Prevention

The risk of developing many cancers can be reduced by what we eat, drink, smoke and do. According to the American Cancer Society, "About one third of the 538,000 deaths in the U.S. attributable to cancer, may be attributable to undesirable dietary practices. This figure includes breast, colon and prostate cancers. Another third, including lung, bladder, pancreatic, larynx, oral cavity and esophageal, may be related to smoking and alcohol".

Ways to reduce the risk of cancer include:
- stop smoking
- do not consume alcohol in excess
- reduce fat in diet
- increase complex carbohydrates and fiber in diet
- decrease exposure to sun and increase use of sunscreens

Screening

Screening is the search for disease in asymptomatic people. The American Cancer Society has guidelines for establishing screening policy.
1. Evidence that the test used was effective in detecting cancer early enough to influence morbidity or mortality.
2. Medical benefits outweighed the risks.
3. The cost had to be reasonable relative to the expected results.
4. The recommendation had to be practical and feasible.

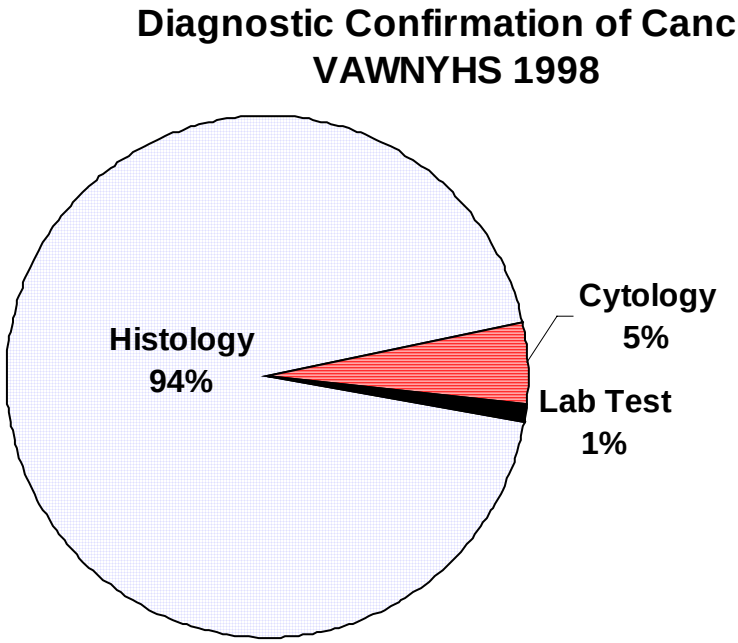
Following the recommendations of the American Cancer Society the VAWNYHS offers the following screening for the veteran patient.

-Yearly physical exam
-Digital rectal exam
-Oral cancer exam
-Stool for occult blood
-Breast exam
-Mammogram
-Pelvic exam with Pap smear
-Flexible sigmoidoscopy
-PSA
-Testicular exam
-Education about self breast exam
-Education about self testicular exam

Pathology Department

The staff of the Pathology Department, with 5 full time pathologists, plays a crucial role in the care of cancer patients. The Pathology Department provides diagnosis of tumors by examination of paraffin embedded histologic sections and cytological preparations. Ancillary techniques to support histologic findings include enzymatic cytochemistry and immunohistochemistry. Frozen sections and intraoperative gross consultation are provided upon request. The pathologic AJCC TNM coding is included in the report of all resected solid malignancy specimens. Our pathologists perform autopsies, which provide the cause of death and whether or not the death is cancer related. The Department of Pathology provides several slide review conferences with the hematology/oncology and the oncologic surgery staff including ENT, general surgery and bone marrow conferences. Pathologists also participate in the weekly citywide Hematology/Oncology conference with slide review and tumor boards as well as Cancer Committee Meetings.

The Hematopathology Section and Flow Cytometry laboratory is headed by a Hematopathologist who has expertise in the field and is thoroughly involved in the review of blood/marrow smears and biopsy material with the Hem/Onc provider. In 1996 the Buffalo VAMC Hematopathology Section was designated a Center for Excellence by the VISN and provides flow cytometry analysis of leukemia/lymphoma specimens for the entire VISN 2 network and several other regional and nearby VA hospitals. Our Flow cytometry service is currently expanding to provide leukemia/lymphoma testing to the non-veteran population in the Buffalo area.



1998 Primary Site Table

AJCC Stage represents Analytic Cases

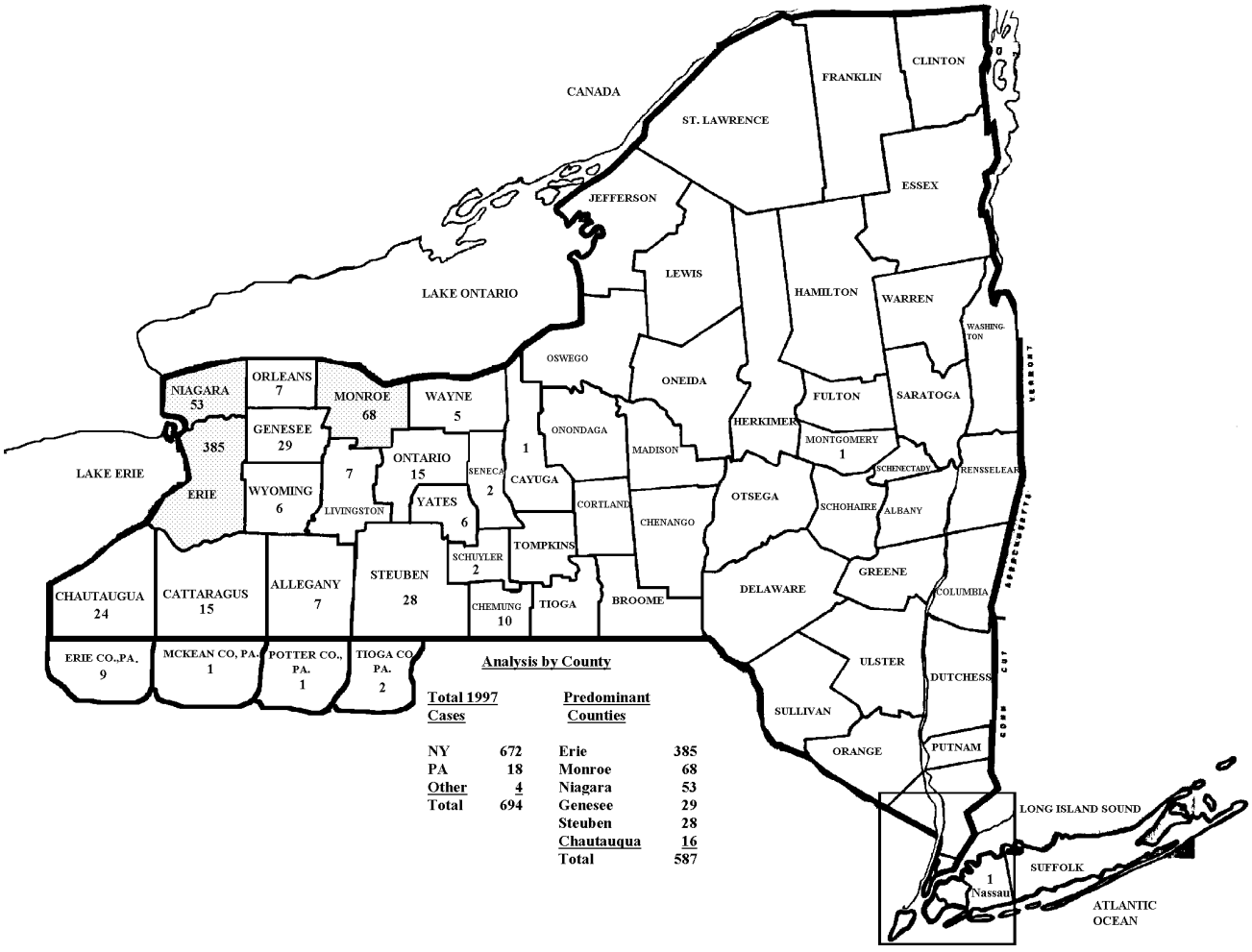
Primary Site	Total	Class		Sex		AJCC Stage Distribution						
		Analytic	NA	Male	Female	0	I	II	III	IV	U	NA
Total Head and Neck	***10***	***9***	***1***	***10***	***0***	***1***	***1***	***2***	***1***	***4***	***0***	***0***
Oral Cavity	3	3	0	3	0	1	1	1	0	0	0	0
Oropharynx	4	4	0	4	0	0	0	0	0	4	0	0
Nasopharynx	2	1	1	2	0	0	0	0	1	0	0	0
Hypopharynx	0	0	0	0	0	0	0	0	0	0	0	0
Parotid	1	1	0	1	0	0	0	1	0	0	0	0
Total Digestive System	***101***	***95***	***6***	***100***	***1***	***10***	***15***	***18***	***13***	***24***	***7***	***8***
Esophagus	13	11	2	13	0	0	0	3	1	5	2	0
Stomach	12	12	0	12	0	1	3	3	0	5	0	0
Small Intestine	1	1	0	1	0	0	0	0	0	0	1	0
Colon	51	49	2	50	1	8	10	9	9	5	3	5
Rectum	9	8	1	9	0	0	2	1	0	3	0	2
Anus	2	2	0	2	0	1	0	1	0	0	0	0
Liver/Intrahepatic Bile	5	5	0	5	0	0	0	0	2	3	0	0
Biliary Tract/NOS	1	1	0	1	0	0	0	0	0	0	1	0
Pancreas	7	6	1	7	0	0	0	1	1	3	0	1
Respiratory System	***94***	***90***	***4***	***91***	***3***	***0***	***21***	***9***	***23***	***29***	***2***	***6***
Larynx	5	4	1	5	0	0	1	2	0	1	0	0
Lung/Bronchus	86	83	3	83	3	0	18	7	23	28	2	5
Mediastinum/Pleura/Heart	2	2	0	2	0	0	2	0	0	0	0	0
Nasal Cavity/Sinuses	1	1	0	1	0	0	0	0	0	0	0	1
Hematopoietic	***18***	***16***	***2***	***17***	***1***	***AJCC Staging NA***						***16***
Leukemia	9	8	1	8	1							9
Multiple Myeloma	4	3	1	4	0							4
Myelodysplastic Syndrome	5	5	0	5	0							5
Total Skin	***9***	***8***	***1***	***9***	***0***	***1***	***3***	***0***	***4***	***0***	***0***	***0***
Melanoma	8	7	1	8	0	1	2	0	4	0	0	0
Merkel Cell Carcinoma	1	1	0	1	0	0	1	0	0	0	0	0
Soft Tissue	***2***	***2***	***0***	***2***	***0***	***0***	***0***	***1***	***0***	***0***	***1***	***0***
Breast	***4***	***4***	***0***	***2***	***2***	***0***	***0***	***3***	***0***	***0***	***1***	***0***
Female Genital	***3***	***3***	***0***	***0***	***3***	***3***	***0***	***0***	***0***	***0***	***0***	***0***
Male Genital	***137***	***126***	***11***	***137***	***0***	***0***	***7***	***77***	***8***	***22***	***9***	***1***
Prostate	132	121	11	132	0	0	5	77	7	22	9	1
Testis	3	3	0	3	0	0	2	0	1	0	0	0
Penis	2	2	0	2	0	2	0	0	0	0	0	0
Urinary	***57***	***53***	***4***	***57***	***0***	***7***	***21***	***10***	***5***	***7***	***3***	***0***
Bladder	36	32	4	36	0	4	14	9	1	4	0	0
Kidney	18	18	0	18	0	0	7	1	4	3	3	0
Renal Pelvis	2	2	0	2	0	2	0	0	0	0	0	0
Urinary/Other	1	1	0	1	0	1	0	0	0	0	0	0
Thyroid	***4***	***4***	***0***	***3***	***1***	***0***	***1***	***1***	***1***	***1***	***0***	***0***
Lymphoma	***9***	***7***	***2***	***8***	***1***	***0***	***4***	***0***	***1***	***2***	***0***	***0***
Brain	***3***	***3***	***0***	***3***	***0***	***0***	***1***	***0***	***0***	***0***	***0***	***2***
Unknown	***16***	***14***	***2***	***15***	***1***	***AJCC Stage NA***						***16***
GRAND TOTAL	***467***	***434***	***33***	***454***	***13***	***22***	***74***	***121***	***56***	***89***	***23***	***49***

Cancer In New York State

Distribution of VAWNYHS Patient Population

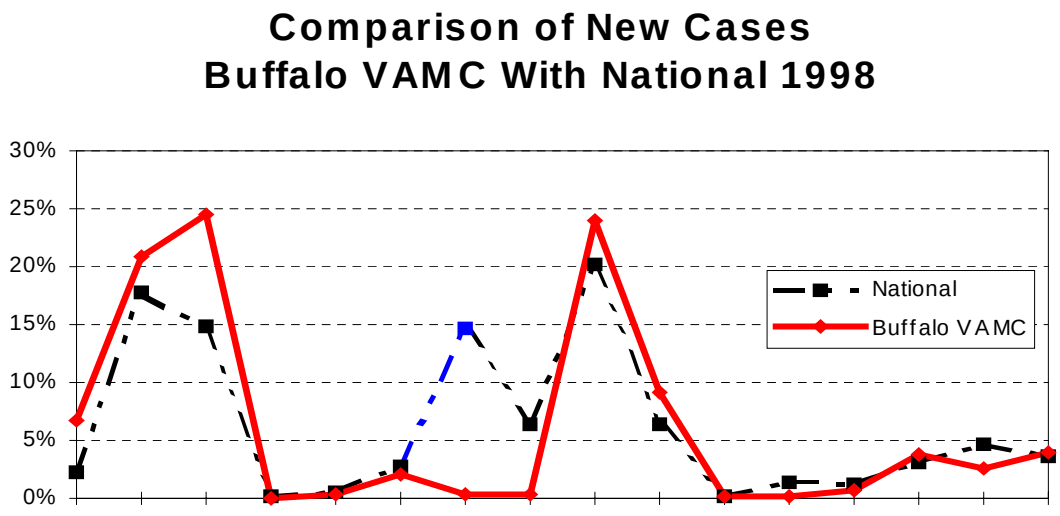
Approximately 80,000 new cases of cancer are diagnosed in New York State per year. Almost 500 of those cases are diagnosed at the Veterans Affairs Western New York Healthcare System. The majority of patients diagnosed with cancer at the VAWNYHS live in the 3 most populated counties of Western New York: Erie, Monroe and Niagara. These 3 counties account for 12% of all new cancer cases in New York State.

73% of the Veterans Affairs Western New York Health Care System's patients live in these 3 counties. The Western New York area is second only to the New York City area in the numbers of new cases diagnosed per year. On average, approximately 5,000 new cases of cancer are diagnosed in Erie County annually; approximately 10% of those cases are diagnosed at the VAWNYHS.



Comparison of VAWNYHS and National Data

A comparison of the 1998 Veterans Affairs Western New York Healthcare System data and the estimated 1998 national data from the American Cancer Society is illustrated below. Less than 4% of the Veterans Affairs Western New York Healthcare System's population is female. This is evident in the differences in the graph for breast and female genital cancers. The high percentage of male genital cancer is attributed to the male-based population of veterans. It is also noted that the national data does not include squamous or basal cell carcinomas of the skin. The predominance of certain cigarette-induced cancers in the VA is also noted with the high incidence of respiratory tumors in the VA population.

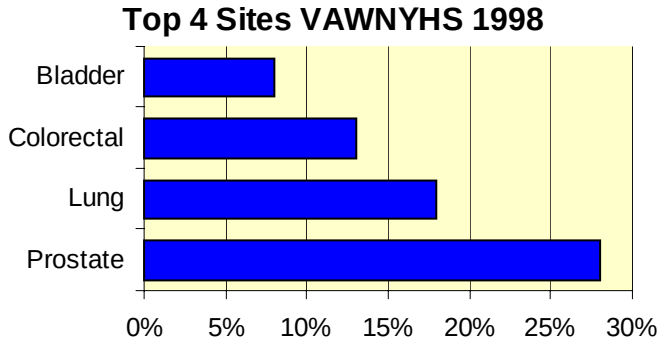


VAWNYHS Cancer Facts

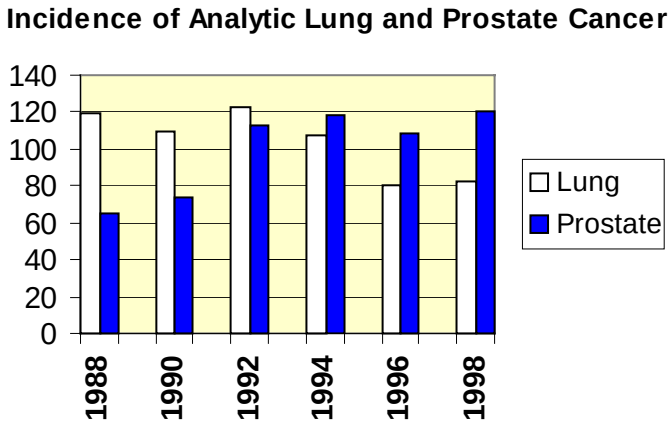
Most commonly seen cancers at VAWNYHS

Of the 467 cancer patients seen at VAWNYHS in 1998, the most common cancer seen was of the prostate with 132 cases. Over the years, lung cancer and prostate cancer have competed for the dubious title of being the number one cancer at VAWNYHS. Over a 10-year period from 1988 to 1998, the most commonly diagnosed cancer was prostate cancer. The 10-year trend shows lung cancer declining and prostate cancer increasing.

68% of the cases for 1998 were from 4 sites

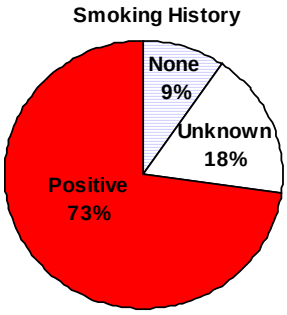


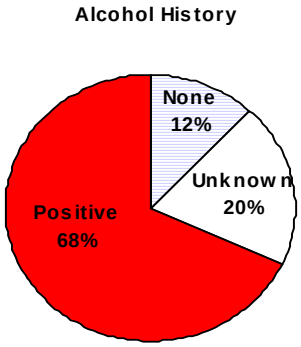
Over the last 10 years, a decrease in the number of lung cancer cases and an increase in the number of prostate cancer cases has been observed at VAWNYHS



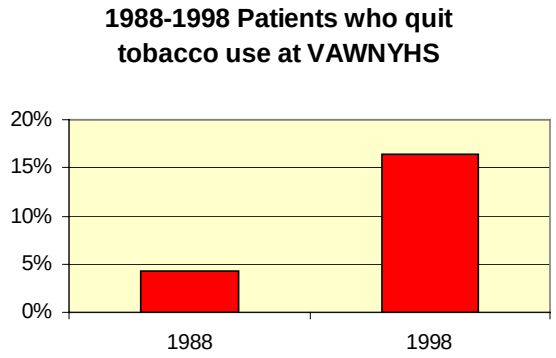
Habits and Demographics

The American Cancer Society states that all cancers caused by cigarette smoking and alcohol use can be completely prevented. The majority of cancer patients at this facility have smoking and alcohol histories.



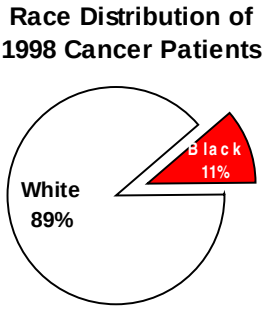


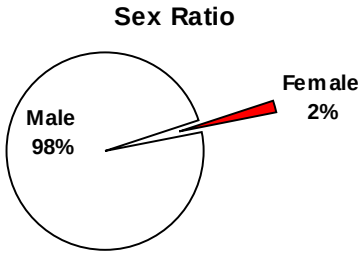
More patients who have smoked are stopping



Race

Over 89% of cancer patients at VAWNYHS are white. This corresponds to the population at large for this hospital.



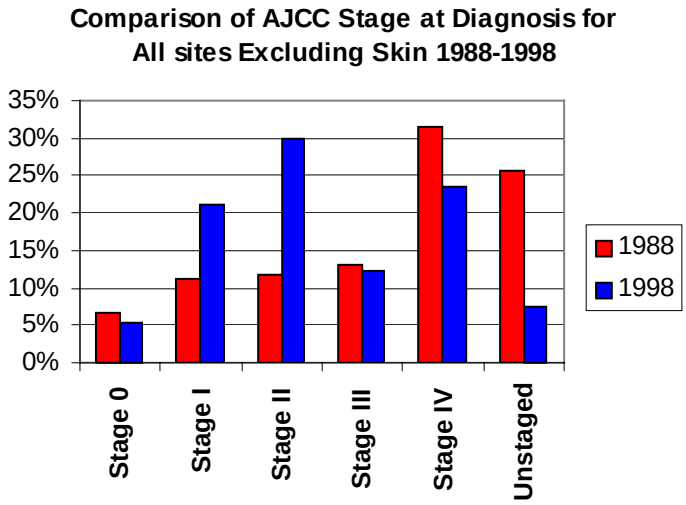


Sex

2% of patients diagnosed with cancer at this facility in 1998 were female. 4% of the VAWNYHS population is female. In the US, men have a 1 in 2 lifetime risk of developing cancer, for women, the risk is 1 in 3.

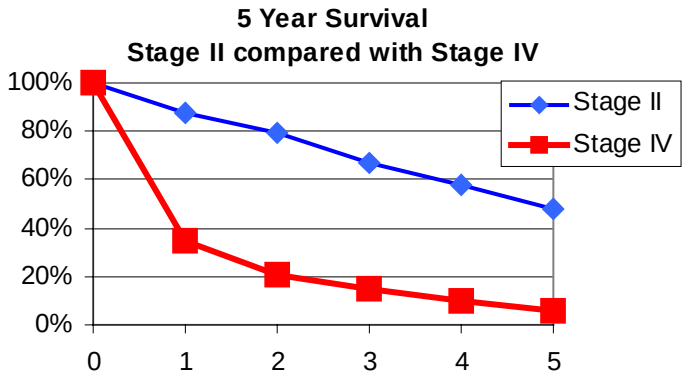
More Cancer Facts VAWNYHS-1998

AJCC staging is used for all applicable sites at VAWNYHS. AJCC staging classifications are based on description of the extent of disease at diagnosis. The extent to which the disease has spread is an indicator of the prognosis and often influences therapeutic regimens used. The key to survival is early detection and treatment. AJCC stage at diagnosis was compared for 1988 and 1998. Through the use of screening, prevention and education, cancer is being diagnosed at a much earlier stage than in the past. The chart below illustrates a dramatic increase in the number of patients diagnosed with Stage II disease in 1998 as compared to 1988.



Early Detection Affects Survival

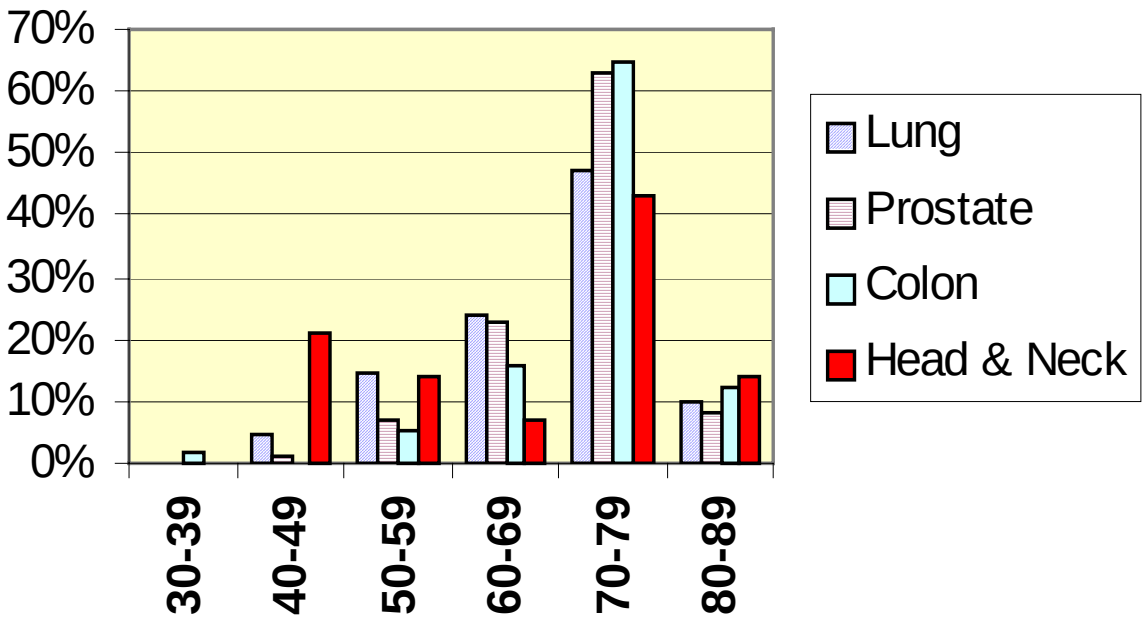
The 5-year survival chart below shows the survival by AJCC stage for all sites at the VAWNYHS. The improved survival of the early stage patients illustrates the importance of early detection.



Age at Diagnosis of Cancer Patients at Buffalo in 1998

Since the occurrence of cancer increases as individuals age, most cancer affects adults, middle-aged or older. The majority of the patients seen at VAWNYHS are between 50 and 80 years old. Cancer death rates for many major cancer sites have leveled off or declined nationally over the past 50 years. Consequently the cancers which are more common in an older population such as those seen at the VA, (lung, urinary, prostate, and colon) have remained steady or have increased.

The graph below shows age at diagnosis for specific sites.



Prostate Cancer

at VAWNYHS –1998

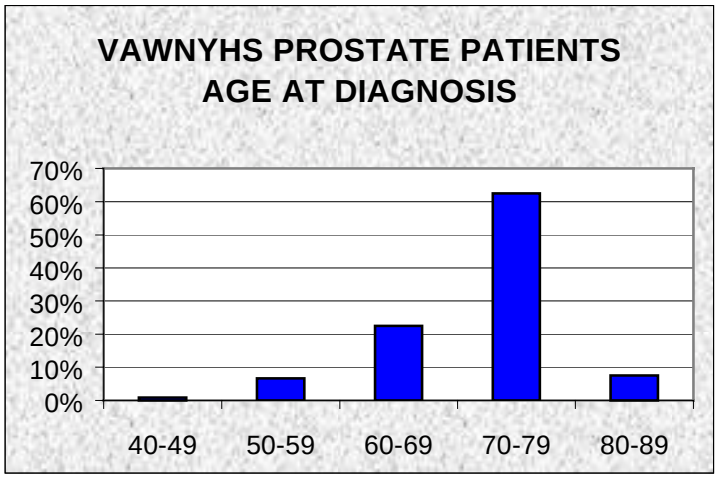
Prostate Patient Demographics

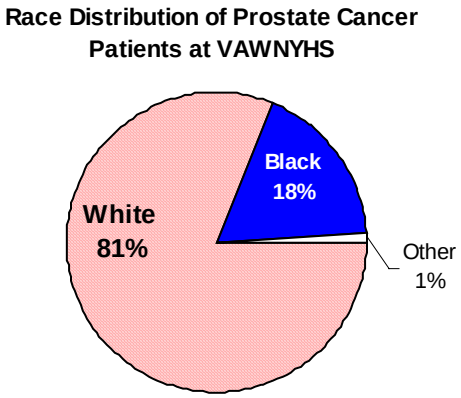
Prostate cancer, predominantly a tumor of older men, is the most frequently diagnosed cancer throughout the Department of Veterans Affairs Hospital System.

1998 Age of Prostate Cancer Patients*

<50……1
50-59…….8
60-69…….33
70-79…….80
80-89…….10

***120 Analytic Patients**
12 Non-analytic Patients





Race

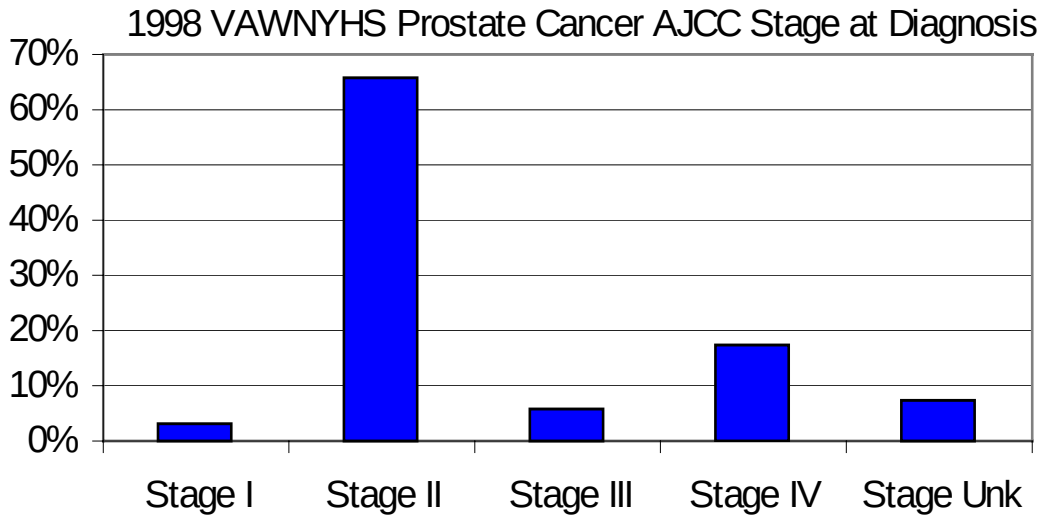
Nationally the risk for prostate cancer among black men is almost double that of white men. At this facility, only 11% of all cancer patients are black, yet 18% of patients diagnosed with prostate cancer are black.

Prostate Cancer

AJCC TNM Staging for Adenocarcinoma of the Prostate

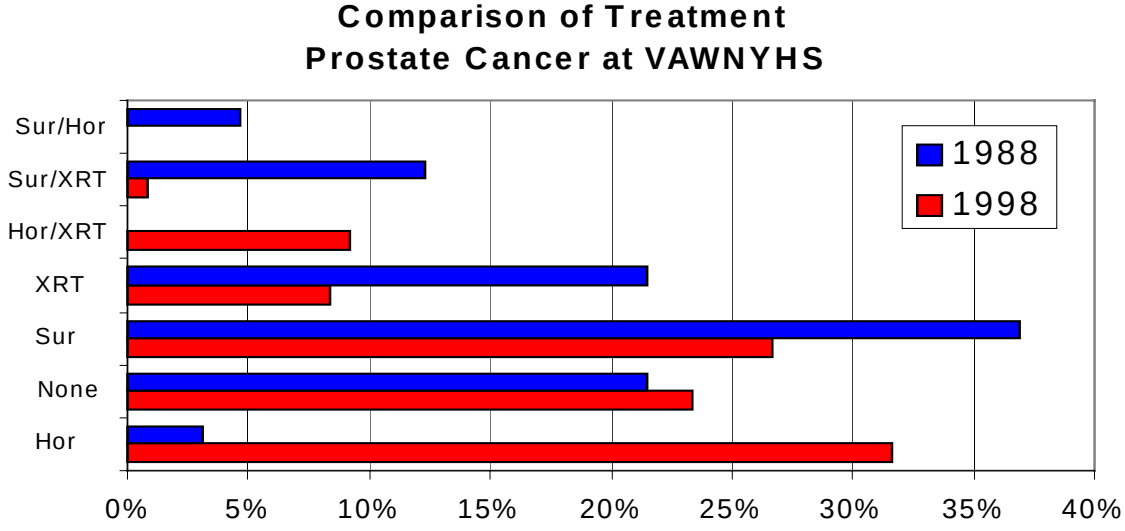
Stage I (grade 1)	**T1a N0 M0** Incidental finding 5% or < of resected tissue		
Stage II	**T1a N0 M0** Grade 2-4	**T1b/c N0 M0** Incidental finding in >5% resected tissue Needle bx because of elevated PSA	**T2 a/b** Tumor confined within prostate
Stage III	**T3a N0 M0** Extends through prostatic capsule	**T3b N0 M0** Invades seminal vesicle(s)	
Stage IV	**T4 N0 M0** Tumor invades adjacent structures	**any T N1-3 M0** Positive regional lymph nodes	**any T any N M1** Distant metastasis

The majority of patients diagnosed since the use of PSA screening are diagnosed when the disease is still confined to the prostate.



Prostate Cancer
Treatment

The treatment of prostate cancer has changed considerably over the past 10 years. The most common treatment in 1998 for prostate cancer was hormonal treatment, followed closely by surgery or no treatment. This facility participates in the PIVOT trial for prostate cancer, which features a watch and wait approach. This may contribute to the increased numbers of patients who receive no treatment.



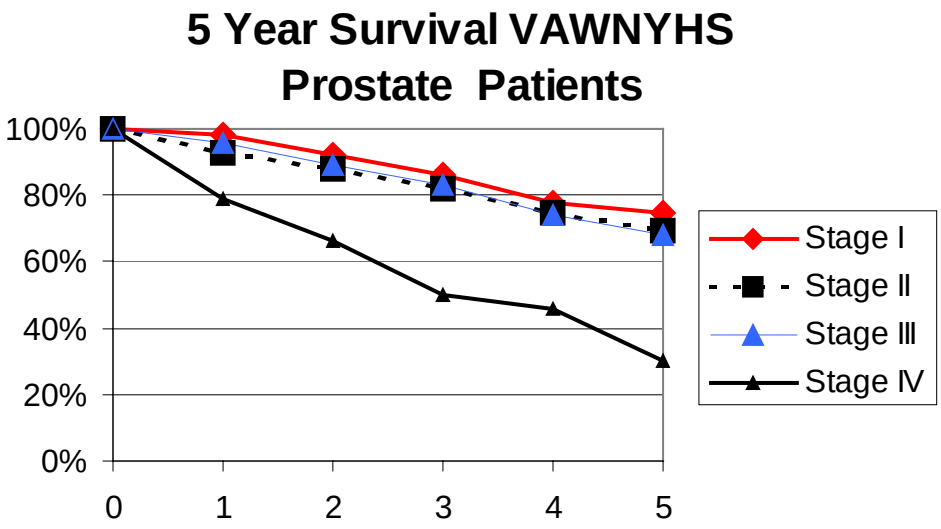
Above is a comparison study of treatment of prostate cancer today compared with 10 years ago. Of note is the relatively little use of hormonal treatment 10 years ago and the increase in patients who do not receive any treatment.

Treatment	1998		1988	
	Patients	Percent	Patients	Percent
Hor	38	32%	2	3%
None	28	23%	14	22%
Sur	32	27%	24	37%
XRT	10	8%	14	22%
Hor/XRT	11	9%	0	0%
Sur/XRT	1	1%	8	12%
Sur/Hor	0	0%	3	5%
Total	120	100%	65	100%

Prostate Cancer Survival

Prostate cancer is the most frequently seen cancer at this facility as well as the most common male cancer in the United States. The survival of patients with prostate cancer is related to the extent of the tumor. Patients with cancer confined to the prostate can expect a median survival in excess of 5 years.

The graph below illustrates the 5-year observed survival by AJCC stage of disease at this facility and from the 1,324 facilities which participated in the National Cancer Database.

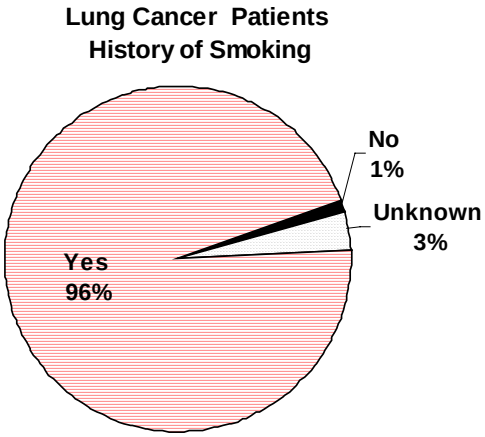


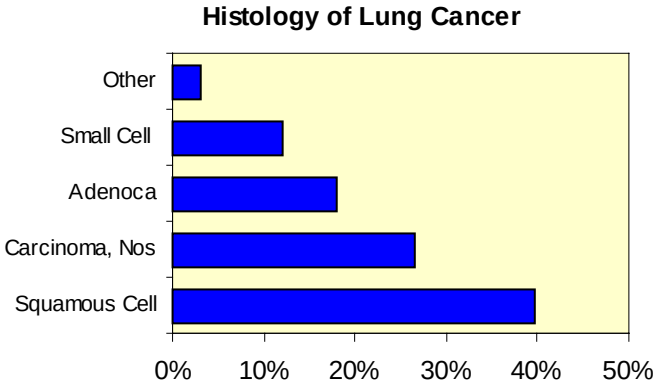
Survival	Stage I		Stage II		Stage III		Stage IV	
Years	Buffalo	NCDB	Buffalo	NCDB	Buffalo	NCDB	Buffalo	NCDB
0	100%	100%	100%	100%	100%	100%	100%	100%
1	98%	94%	93%	95%	96%	95%	79%	82%
2	92%	88%	88%	90%	89%	89%	66%	64%
3	86%	82%	82%	84%	83%	82%	50%	50%
4	78%	76%	75%	77%	74%	75%	46%	40%
5	75%	70%	69%	71%	68%	69%	30%	32%

Lung Cancer
at VAWNYHS -1998

Smoking History

Despite the multitude of morbidity and mortality costs associated with nicotine use, 25% of the general population and 30% of the male veteran population remain addicted to tobacco. Smokers are about 10 times more likely to develop lung cancer than non-smokers.



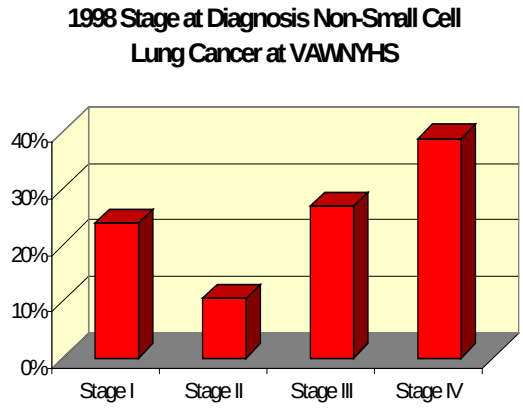


Histology

Although nationally, adenocarcinoma is replacing squamous cell carcinoma as the most frequent histology of lung cancer, squamous cell carcinoma remains the most common histology at this facility. Adenocarcinoma is generally seen in the younger lung cancer patients, and the age of patients at this facility is generally older.

Stage at Diagnosis

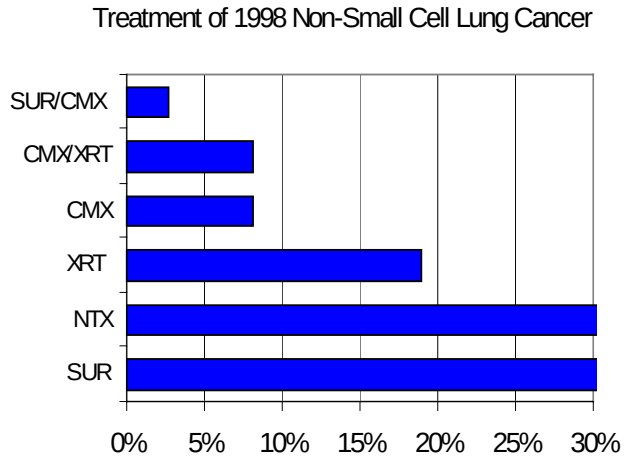
Less than one third of non-small cell lung cancers at this facility are diagnosed at a early stage. Treatment is based on stage of disease at diagnosis. Surgical resection is the mainstay of therapy with curative intent. Unfortunately the majority of patients at this facility and nationally have disease which is not surgically resectable.



Lung Cancer Treatment

Treatment is determined by the stage at diagnosis and the histology of the cancer. Surgery has proven the best treatment modality for Stage I and II non-small cell carcinoma. A combination of chemotherapies is the cornerstone in management of small cell carcinoma

Overview of Treatment at VA WNYHS

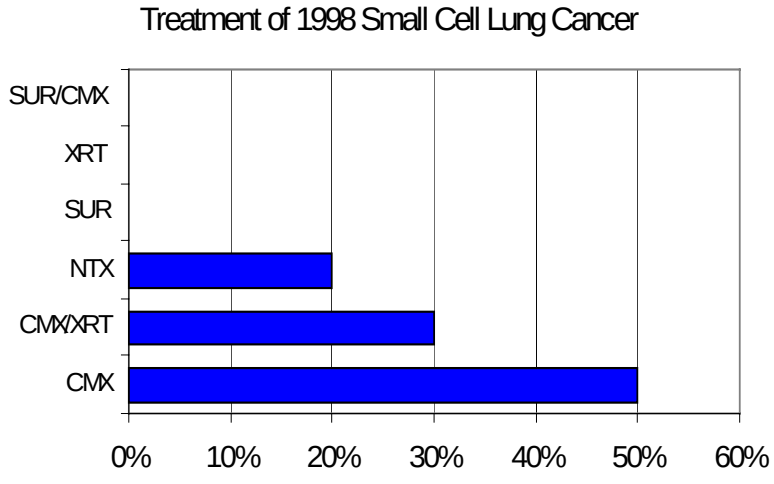


Non-Small Cell Carcinoma

Surgery is the major curative therapeutic option available for non-small cell lung cancer when the disease has been diagnosed at an early stage. The 30% of patients who had no treatment either expired within days of diagnosis or refused treatment and were given supportive care only.

Small Cell Carcinoma

Chemotherapy is the cornerstone of treatment for small cell lung cancer. For those with no clinical evidence of distant spread, the chemotherapy is combined with radiation treatment to the tumor and draining lymph nodes.



Lung Cancer 5 Year Survival

A total of 790 patients with lung cancer were included in a 5-year survival study by the AJCC stage at diagnosis. Included in the study were 166 Stage I, 45 Stage II, 302 Stage III, and 277 Stage IV cases. Surgery is considered the best option for cure of non-small cell lung cancer. Unfortunately, over fifty percent of all lung cancers are inoperable at time of diagnosis. Below is a condensed guideline for AJCC TNM staging for lung cancer. The T refers to the size and extent of the primary tumor; N represents the involvement of hilar and mediastinal lymph nodes, and the M refers to metastatic disease.

TNM Staging for Lung Cancer

4th edition of the AJCC Staging scheme is used.

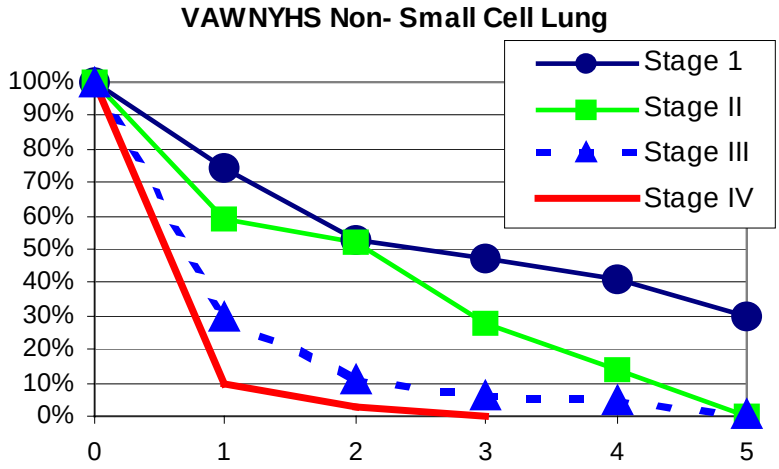
Stage I No lymph node involvement	**T1 N0 M0** Peripheral coin lesion	**T2 N0 M0** >2cm distal to carina/visceral pleura involved	
Stage II Intrapulmonary and/or hilar nodes involved	**T1 N1 M0** <3cm involving peribronchial lymph nodes	**T2 N1 M0** Visceral pleura and peri-bronchial/hilar lymph nodes	**T2 N1 M0** Main bronchus and hilar lymph nodes
Stage III Mediastinal/subcarinal lymph nodes, direct extension within chest	**T1-2 N2 M0** Mediastinal and/or subcarinal lymph nodes	**T3 N0-3 M0** Chest wall, superior sulcus, atelectasis intra-pulmonary/ mediastinal lymph nodes	**T4 any N M0** Mediastinum, great vessels, vertebral body, carina, or malignant pleural effusion
Stage IV Distant metastasis	**any T any N M1** Distant metastasis		

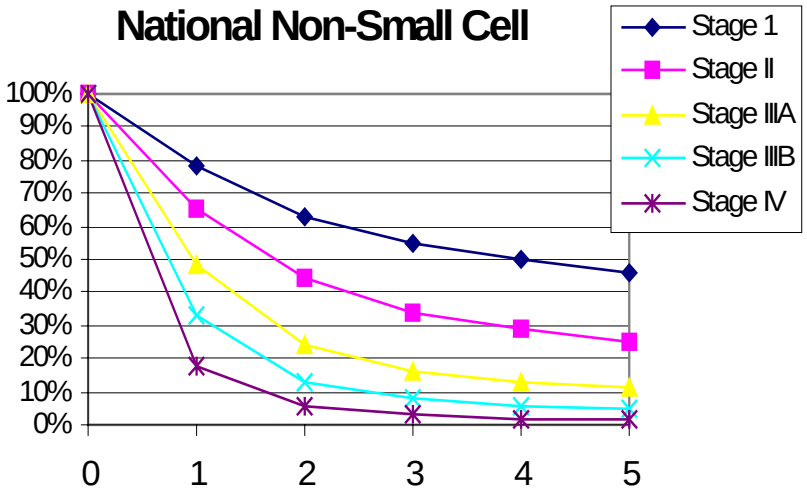
5 Year Survival
Non-Small Cell Lung Cancer

Comparison of VAWNYHS Data with National Data

VAWNYHS Data
Non-Small Cell Lung

586 patients were used in this 5-year survival study. There were 132 Stage I, 41 Stage II, 243 Stage III (A and B combined), and 170 Stage IV.





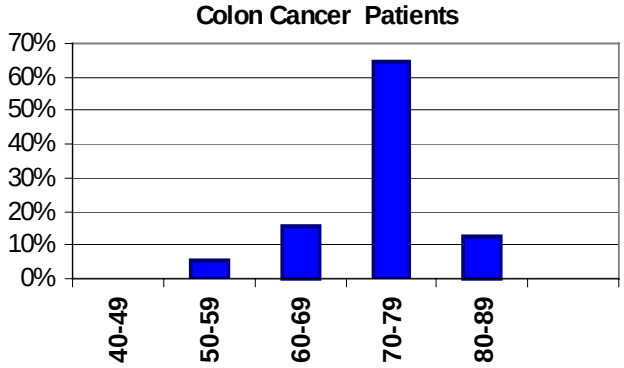
National Non-Small Cell Lung Cancer

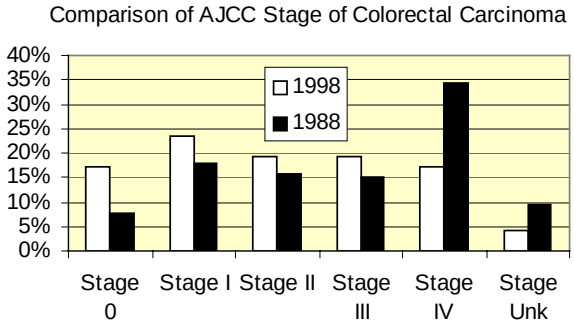
The chart to the left contains data from a 5-year survival study from the NCDB. The study included more than 156,000 patients.

Colon Cancer
at VAWNYHS -1998

Age at Diagnosis

The majority of patients are over 70 years of age when diagnosed with colon or rectal carcinoma.





AJCC Stage at Diagnosis

Colon cancer is highly treatable if diagnosed in its early stages. In 1998, more Stage 0, Stage 1 and Stage 2 were detected than ever before. The screening program at this hospital and increased public awareness may be responsible for earlier detection.

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Review of 1998 Stage III and IV Colorectal Cancer Treatment
VA WNY Healthcare System

Cases Used: Colorectal carcinomas diagnosed between January 1, 1998 and December 31, 1998. The cases were either Stage III or IV at the time of diagnosis, and were diagnosed and treated at this facility. The data used was from the cancer registry.

Stage III: (Any T N1 or N2 M0)

- 8 cases identified by the registry, which were Stage III at the time of surgery.
- One patient expired prior to being started on chemotherapy; all others received adjuvant chemotherapy.

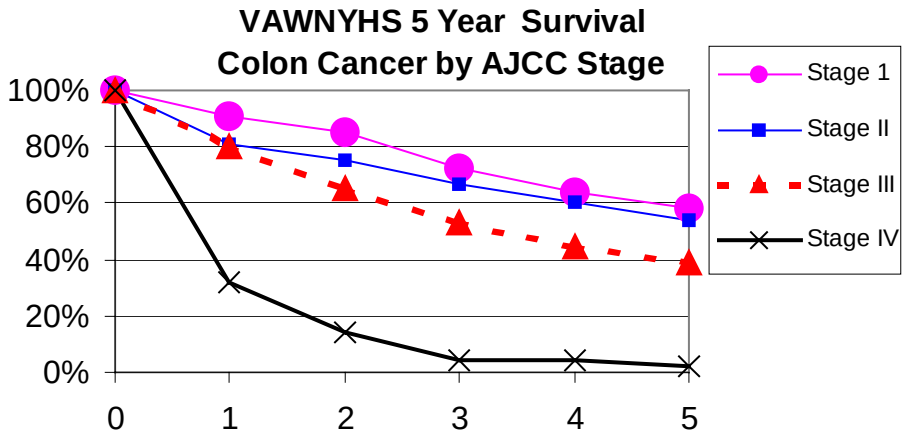
Stage IV: (Any T Any N M1)

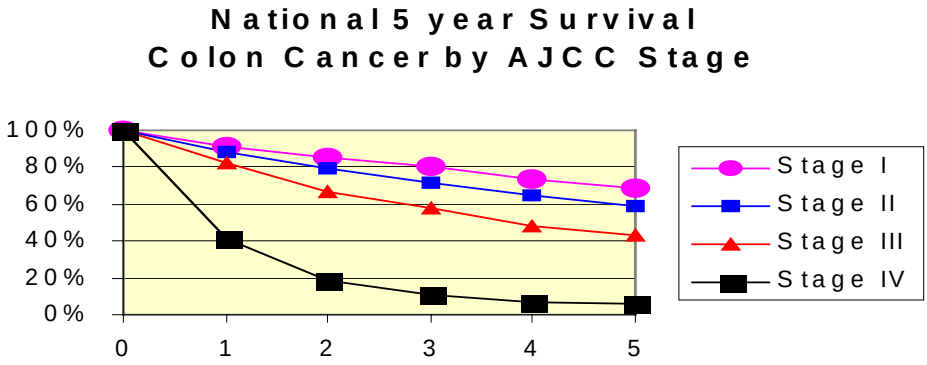
- 7 cases identified by the registry, which were Stage IV at the time of diagnosis.
- 1 patient was treated with chemotherapy alone.
- 2 patients (both with rectal ca) were treated with radiation and chemotherapy.
- 4 patients did not receive any treatment. (Three of the four patients refused treatment and 1 patient expired shortly after diagnosis).

Colon Cancer 5-Year Survival

The chart below illustrates 5-year survival of patients with colon cancer by the AJCC stage at the time of diagnosis. A total of 672 patients were included: 185 Stage I; 177 Stage II; 144 Stage III, and 166 Stage IV. Below is a condensed guideline for AJCC TNM staging for colon and rectal carcinoma.

Stage I	**T1 N0 M0** Invades submucosa	**T2 N0 M0** Invades muscularis propria	
Stage II	**T3 N0 M0** Through muscularis propria into subserosa	**T4 N0 M0** Invades other organs or perforates visceral peritoneum	
Stage III	**Any T N1 M0** 1-3 pericolic or peri-rectal lymph nodes	**Any T N2 M0** 4 or more pericolic or perirectal lymph nodes	**Any T N3 M0** Lymph nodes along named vascular trunk
Stage IV	**Any T Any N M0** Distant metastasis		





Glossary

Accessioned: order in which patients are entered into the tumor registry for a given year. Each patient has one unique accession number.

ACoS: American College of Surgeons

AJCC: American Joint Committee on Cancer, responsible for the TNM cancer staging.

American College of Surgeons: The administrative body responsible for the establishment of guidelines for approved cancer programs.

Analytic: Cases that were first diagnosed and/or received all of part of their first course of treatment at the VAWNYHS.

DHCP: Decentralized Hospital Computer Program.

First Course of Treatment: The initial tumor-directed treatment or series of treatments, usually initiated within four months of diagnosis.

National Cancer Data Base: Data collected from hospital cancer registries across the country by the American College of Surgeons Commission on Cancer which is used to show trends in cancer diagnosis, treatment and outcome.

NCDB: National Cancer DataBase.

Non-Analytic: Cases that have been diagnosed and received all first course treatment elsewhere.

Primary Site: The anatomical location within the human body considered the point of origin for the primary malignancy.

Recurrence: Reappearance of cancer after the appearance of remission.

Reference Date: The starting date after which all cases are entered into the registry. It is established as January 1 of a given year.

References

AMERICAN CANCER SOCIETY TEXTBOOK OF CLINICAL ONCOLOGY. 2nd ed. 1996. American Cancer Society.

CA: A CANCER JOURNAL FOR CLINICIANS. " CANCER STATISTICS 1996". Jan/Feb 1996

CANCER. Robert McAllister, M.D. 1993. Basicbooks

CANCER FACTS AND FIGURES. 1998. American Cancer Society.

CANCER NURSING PRINCIPLES AND PRACTICE. 1992. Susan Groenwald.

CANCER PROGRAM MANUAL. 1991. American College of Surgeons.

EVERYONE'S GUIDE TO CANCER THERAPY. Malin Dollinger, M.D. 1992. Somerville House Books

GUIDELINES FOR PREPARING A HOSPITAL CANCER PROGRAM ANNUAL REPORT. 1986. American Cancer Society.

MANUAL FOR STAGING OF CANCER. 1997. American Joint Committee on Cancer. 5th ed.

ONCOLOGY FOR THE HOUSE OFFICER. 1992. Joseph O'Donnell

1998 QUICK CANCER FACTS 1998. Cancer March Homepage, http://www.cancermarch.org